CLAIMS

What is claimed is:

1	1.	A method of modifying a subscription of a subscriber to a telecommunications service
2		based on subscriber information and service information that are stored in a directory
3		repository, the method comprising the computer-implemented steps of:
4		receiving a modification request to modify the subscription of the subscriber to the
5		telecommunications service;
6		determining, based on privilege information in a privilege token associated with the
7		subscriber that is generated by an authorization service, whether the subscriber
8		has privileges sufficient to carry out the requested modification;
9		receiving, from the directory repository, first subscriber information and first service
10		information representing only such services for which the subscriber is then
11		currently subscribed;
12		modifying the first subscriber information and first service information to reflect the
13		modification;
14		sending the modified information to the directory repository, resulting in creating and
15		storing, in the directory repository, second service information that reflects the
16		modification;
17		generating an engagement request to engage the telecommunications service for the
18		subscriber in order to fulfill the modification request.

1	2.	A method as recited in Claim 1, further comprising the steps of creating and storing
2		the privilege token by the steps of:
3		receiving a user name associated with the subscriber and mapping the user name to a
4		distinguished name in the directory repository;
5		creating and storing in the privilege token, one or more roles occupied by the
6		subscriber based on role information that is stored in the directory repository.

50325-0508 (Seq. No. 3254)

1   3.   A method as recited in Claim 1, further comprising the steps of creating and storing a

2   host object that uniquely identifies the subscriber for the subscriber wherein the host

3   object contains the privilege token corresponding to the subscriber.

1   4.   A method as recited in Claim 1, further comprising the steps of subscribing the

2   subscriber to the service by creating and storing a relation of a subscriber object that

3   programmatically represents the subscriber to a service object that programmatically

4   represents the service, and creating and storing one or more attribute values in the

5   relation, wherein the attribute values define the subscription.

1   5.   A method of modifying subscriptions of a group of subscribers to one or more

2   telecommunications services based on subscriber information and service information

3   that are stored in a directory repository, the method comprising the computer-

4   implemented steps of:

5   receiving from an administrator of the group, a request to modify the subscriptions of

6   the subscribers to the telecommunications service;

7   determining, based on privilege information in a privilege token that is associated

8   with the administrator and is generated by an authorization service, whether

9   the administrator has privileges sufficient to carry out the requested

10   modification;

11   receiving, from the directory repository, current subscriber information and current

12   service information representing then-current services to which the subscribers

13   are subscribed;

14   modifying the subscriber information and service information to reflect the

15   modifications, resulting in creating and storing, in the directory repository,

16   updated service information that reflects the modifications;

17   generating one or more requests to subscribe the telecommunications service to the

18   group of subscribers to fulfill the request of the administrator.

50325-0508 (Seq. No. 3254)

1   6.   A method as recited in Claim 5, wherein the group of subscribers is defined explicitly

2   by creating and storing a named group that contains one or more subscribers as group

3   members.

1   7.   A method as recited in Claim 5, wherein the group of subscribers is defined implicitly

2   such that the group comprises one or more subscribers in an object tree of the

3   directory repository who are subordinate in the tree to a container node of the tree.

1   8.   A method as recited in Claim 5, further comprising the steps of subscribing one of the

2   subscribers in the group to the service by creating and storing a relation of a

3   subscriber object that programmatically represents the subscriber to a service object

4   that programmatically represents the service, and creating and storing one or more

5   attribute values in the relation, wherein the attribute values define the subscription.

1   9.   A method of automatically logging in a subscriber to a telecommunications service

2   based on subscriber information and service information that are stored in a directory

3   repository, the method comprising the computer-implemented steps of:

4   receiving a request to from the subscriber to log in to the telecommunications service;

5   performing authentication to determine whether the subscriber is allowed to log into

6   the telecommunication service;

7   receiving, from the directory repository, a list of all services for which the subscriber

8   is then currently subscribed, including the telecommunications service;

9   automatically logging the subscriber into all services identified in the list.

1 10.   A method as recited in Claim 9, wherein automatically logging the subscriber into all

2   services identified in the list comprises the steps of:

3   for each of the services identified in the list:

4   obtaining service information that describes the services from the directory repository;

5   creating and storing a relation between a service object in the directory repository that

6   uniquely identifies and represents each of the services and privileges of the

7   subscriber, and a subscriber object that uniquely represents the subscriber.

1   11.   A method as recited in Claim 10, further comprising the steps of storing the privilege

2   token in a service selection gateway for use in subsequent authorization processes

3   relating to the subscriber.

1   12.   A method as recited in Claim 10, wherein performing authentication to determine

2   whether the subscriber is allowed to log into the telecommunication service further

3   comprises the steps of:

4   creating and storing a privilege token that uniquely identifies the subscriber;

5   determining, based on privilege information in a privilege token associated with the

6   subscriber that is generated by an authorization service, whether the subscriber

7   has privileges sufficient to carry out the automatic login.

1   13.   A method of automatically subscribing a subscriber to a telecommunications service

2   based on subscriber information and service information that are stored in a directory

3   repository, the method comprising the computer-implemented steps of:

4   receiving a request from the subscriber to obtain a list of available

5   telecommunications services;

6   generating a list of only those telecommunications services for which the subscriber

7   has a privilege to subscribe to, based on privilege information and service

8   information that is stored in the directory repository and associated with the

9   subscriber;

10   receiving a subscriber selection of one of the telecommunications services;

11   verifying that the subscriber has privileges that permit the subscriber to subscribe to

12   the selected telecommunications service;

13   creating and storing updated subscription information in the directory repository;

14   generating a request to subscribe the subscriber to the selected telecommunications

15   service based on the updated subscription information.

1   14.   A method as recited in Claim 13, further comprising the steps of retrieving a privilege

2   token for the subscriber that identifies a role of the subscriber that maps to one or

3   more privileges of the subscriber, in response to receiving a request to from the

4   subscriber to obtain a list of available telecommunications services, wherein the

5   privileges of the subscriber specify what telecommunications services to which the

6   subscriber is entitled to subscribe.

1   15.   A method as recited in Claim 13, wherein generating a list of only those

2   telecommunications services for which the subscriber has a privilege to subscribe to

3   includes the step of generating and providing to the subscriber a custom display page

4   that identifies only those telecommunications services for which the subscriber has a

5   privilege to subscribe.

1   16.   A computer-readable medium carrying one or more sequences of instructions for

2   modifying a subscription of a subscriber to a telecommunications service based on

3   subscriber information and service information that are stored in a directory

4   repository, which instructions, when executed by one or more processors, cause the

5   one or more processors to carry out the steps of:

6   receiving a modification request to modify the subscription of the subscriber to the

7   telecommunications service;

8   determining, based on privilege information in a privilege token associated with the

9   subscriber that is generated by an authorization service, whether the subscriber

10   has privileges sufficient to carry out the requested modification;

11   receiving, from the directory repository, first subscriber information and first service

12   information representing only such services for which the subscriber is then

13   currently subscribed;

14   modifying the first subscriber information and first service information to reflect the

15   modification;

50325-0508 (Seq. No. 3254)

16	sending the modified information to the directory repository, resulting in creating and
17	storing, in the directory repository, second service information that reflects the
18	modification;
19	generating an engagement request to engage the telecommunications service for the
20	subscriber in order to fulfill the modification request.

1	17.	An apparatus for modifying a subscription of a subscriber to a telecommunications
2		service based on subscriber information and service information that are stored in a
3		directory repository, comprising:
4		means for receiving a modification request to modify the subscription of the
5		subscriber to the telecommunications service;
6		means for determining, based on privilege information in a privilege token associated
7		with the subscriber that is generated by an authorization service, whether the
8		subscriber has privileges sufficient to carry out the requested modification;
9		means for receiving, from the directory repository, first subscriber information and
10		first service information representing only such services for which the
11		subscriber is then currently subscribed;
12		means for modifying the first subscriber information and first service information to
13		reflect the modification;
14		means for sending the modified information to the directory repository, resulting in
15		creating and storing, in the directory repository, second service information
16		that reflects the modification;
17		means for generating an engagement request to engage the telecommunications
18		service for the subscriber in order to fulfill the modification request.

1	18.	An apparatus for modifying a subscription of a subscriber to a telecommunications
2		service based on subscriber information and service information that are stored in a
3		directory repository, comprising:
4		a network interface that is coupled to a data network that includes the directory
5		repository for receiving information therefrom;
6		a processor;

50325-0508 (Seq. No. 3254)

7	one or more stored sequences of instructions which, when executed by the processor,
8	cause the processor to carry out the steps of:
9	receiving a modification request to modify the subscription of the subscriber
10	to the telecommunications service;
11	determining, based on privilege information in a privilege token associated
12	with the subscriber that is generated by an authorization service,
13	whether the subscriber has privileges sufficient to carry out the
14	requested modification;
15	receiving, from the directory repository, first subscriber information and first
16	service information representing only such services for which the
17	subscriber is then currently subscribed;
18	modifying the first subscriber information and first service information to
19	reflect the modification;
20	sending the modified information to the directory repository, resulting in
21	creating and storing, in the directory repository, second service
22	information that reflects the modification;
23	generating an engagement request to engage the telecommunications service
24	for the subscriber in order to fulfill the modification request.

1	19.	A method of modifying a subscription of a subscriber to a telecommunications service
2		based on information stored in a directory repository, the method comprising the
3		computer-implemented steps of:
4		receiving a request to identify one or more services to which a subscriber is
5		subscribed, based on a prior request to modify the subscription of the
6		subscriber to the telecommunications service;
7		generating a list of the one or more services to which the subscriber is currently
8		subscribed, based on group membership of the subscriber, one or more roles
9		occupied by the subscriber, and authorization information associated with the
10		subscriber that is stored in the directory repository;

50325-0508 (Seq. No. 3254)

11   generating individual service information for each of the one or more services in the
12   list, based on subscriber information and service information that is stored in
13   the directory repository, for use in automatically subscribing the subscriber to
14   a service that is represented by the individual service information.

1 20.   A computer-readable medium carrying one or more sequences of instructions for
2   modifying a subscription of a subscriber to a telecommunications service based on
3   subscriber information and service information that are stored in a directory
4   repository, which instructions, when executed by one or more processors, cause the
5   one or more processors to carry out the steps of:
6   receiving a request to identify one or more services to which a subscriber is
7   subscribed, based on a prior request to modify the subscription of the
8   subscriber to the telecommunications service;
9   generating a list of the one or more services to which the subscriber is currently
10   subscribed, based on group membership of the subscriber, one or more roles
11   occupied by the subscriber, and authorization information associated with the
12   subscriber that is stored in the directory repository;
13   generating individual service information for each of the one or more services in the
14   list, based on subscriber information and service information that is stored in
15   the directory repository, for use in automatically subscribing the subscriber to
16   a service that is represented by the individual service information.

1 21.   An apparatus for modifying a subscription of a subscriber to a telecommunications
2   service based on subscriber information and service information that are stored in a
3   directory repository, comprising:
4   means for receiving a request to identify one or more services to which a subscriber is
5   subscribed, based on a prior request to modify the subscription of the
6   subscriber to the telecommunications service;

-54-

7 means for generating a list of the one or more services to which the subscriber is

8 currently subscribed, based on group membership of the subscriber, one or

9 more roles occupied by the subscriber, and authorization information

10 associated with the subscriber that is stored in the directory repository;

11 means for generating individual service information for each of the one or more

12 services in the list, based on subscriber information and service information

13 that is stored in the directory repository, for use in automatically subscribing

14 the subscriber to a service that is represented by the individual service

15 information.

1 22. An apparatus for modifying a subscription of a subscriber to a telecommunications

2 service based on subscriber information and service information that are stored in a

3 directory repository, comprising:

4 a directory-enabled service selection framework that is coupled to the directory

5 repository for receiving stored information therefrom;

6 a processor;

7 one or more stored sequences of instructions in the framework which, when executed

8 by the processor, cause the processor to carry out the steps of:

9 receiving a request to identify one or more services to which a subscriber is

10 subscribed, based on a prior request to modify the subscription of the

11 subscriber to the telecommunications service;

12 generating a list of the one or more services to which the subscriber is

13 currently subscribed, based on group membership of the subscriber,

14 one or more roles occupied by the subscriber, and authorization

15 information associated with the subscriber that is stored in the

16 directory repository;

17 generating individual service information for each of the one or more services

18 in the list, based on subscriber information and service information that

19 is stored in the directory repository, for use in automatically

20 subscribing the subscriber to a service that is represented by the

21 individual service information.

50325-0508 (Seq. No. 3254)